

RCA VICTOR MODELS T 6-1 and C 6-2

Six-Tube, Three-Band, A-C, Superheterodyne Receivers

SERVICE NOTES

Electrical Specifications

RADIOTRON COMPLEMENT

| | | | |
|------------------|---------------------------|------------------|-------------------------|
| (1) RCA-6A8..... | First Detector-Oscillator | (4) RCA-6F5..... | Audio Voltage Amplifier |
| (2) RCA-6K7..... | Intermediate Amplifier | (5) RCA-6F6..... | Audio Power Amplifier |
| (3) RCA-6H6..... | Second Detector-A.V.C. | (6) RCA-80..... | Full Wave Rectifier |

FREQUENCY RANGES

| | |
|-------------|----------------|
| Band A..... | 540—1625 kc. |
| Band B..... | 1625—5700 kc. |
| Band C..... | 5700—18000 kc. |

ALIGNMENT FREQUENCIES

| | |
|-------------|---------------------------------------|
| Band A..... | 600 kc. (osc.), 1400 kc. (osc., ant.) |
| Band B..... | None required |
| Band C..... | 18000 kc. (osc., ant.) |

Intermediate Frequency..... 460 kc.

POWER SUPPLY RATINGS

| | |
|---------------|---|
| Rating A..... | 105—125 volts, 50—60 cycles, 85 watts |
| Rating B..... | 105—125 volts, 25—60 cycles, 90 watts |
| Rating C..... | 100—130/140—160/195—250 volts, 40—60 cycles, 85 watts |

POWER OUTPUT

| | |
|------------------|-----------|
| Undistorted..... | 2.0 watts |
| Maximum..... | 4.5 watts |

LOUDSPEAKER

| | |
|---------------------------|----------------------|
| Type..... | Electrodynamic |
| Voice Coil Impedance..... | 2.25 ohms—400 cycles |

Mechanical Specifications

| | |
|------------------------------|----------------------------------|
| Chassis Base Dimensions..... | 12 inches x 7 inches x 2½ inches |
| Tuning Drive Ratio..... | 10 to 1 and 50 to 1 |

MODEL T 6-1

| | |
|-------------|------------|
| Height..... | 19⅞ inches |
| Width..... | 13⅝ inches |
| Depth..... | 8½ inches |

| | |
|------------------------|------------|
| Weight (Net)..... | 20½ pounds |
| Weight (Shipping)..... | 23½ pounds |

MODEL C 6-2

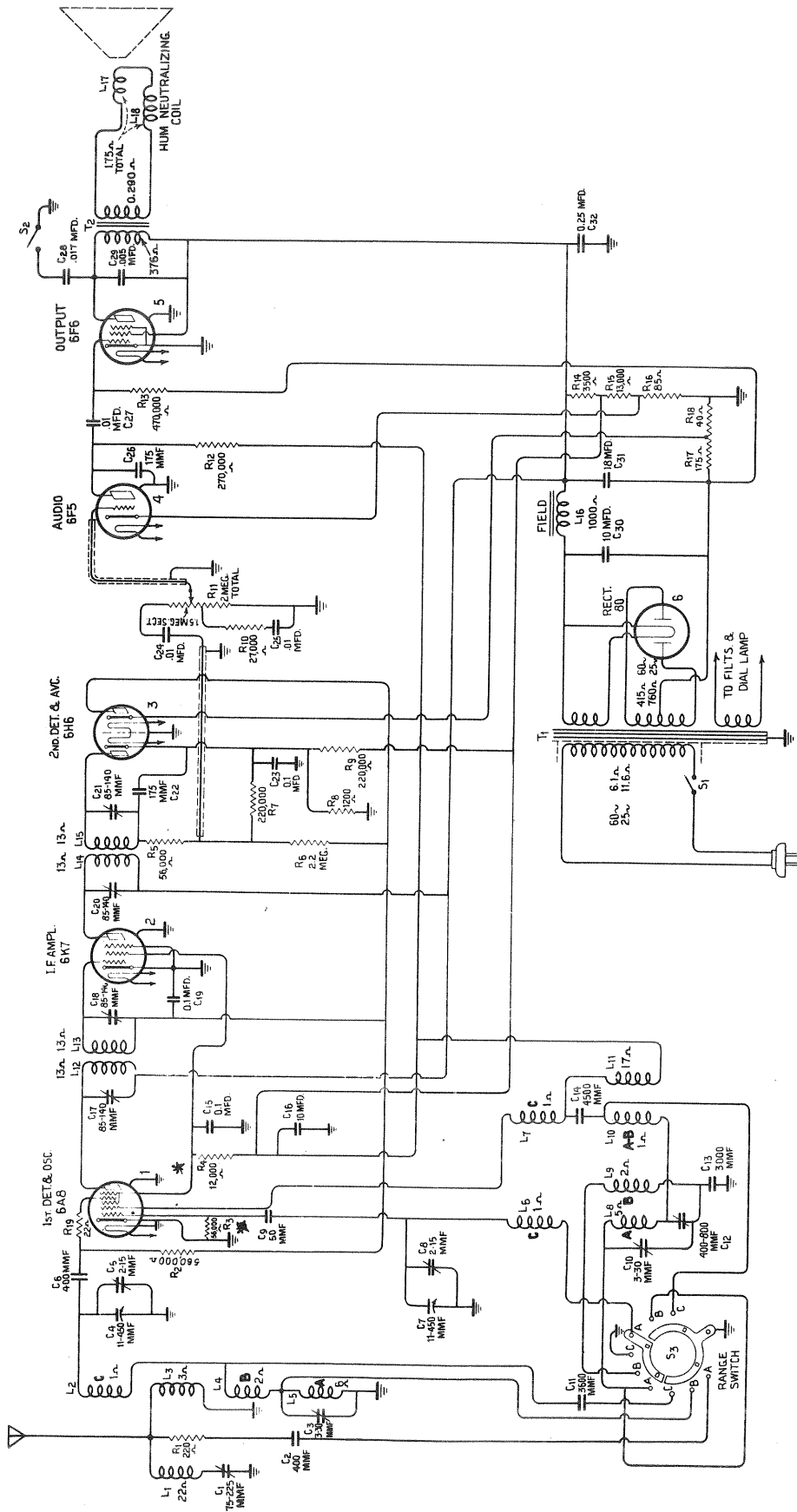
| | |
|-------------|------------|
| Height..... | 37¼ inches |
| Width..... | 23⅝ inches |
| Depth..... | 11 inches |

| | |
|------------------------|-----------|
| Weight (Net)..... | 43 pounds |
| Weight (Shipping)..... | 56 pounds |

General Features

These two models each employ the same six-tube chassis. They have the new metallic tubes. The tuning-range is from 540 to 18,000 kc. The coverage includes domestic broadcast, police, aircraft and amateur services and also the important foreign shortwave broadcast bands at 49, 31, 25, 19 and 16 meters. Chassis features include automatic volume control, high frequency tone control, antenna wave trap and audio tone compensation. A high level of output is available from the receiver for reproduction by the electrodynamic loudspeaker. The table model (T 6-1)

uses an 8-inch dynamic speaker and the console model (C 6-2) uses an improved 12-inch dynamic speaker. The tuning dial is an illuminated semi-airplane type. Positions of the range selector knob are marked on the control panel to show which tuning band is in use. The tuning control is of the dual-ratio type, which permits rough tuning through a 10-1 drive ratio and vernier tuning through a 50-1 drive ratio. The latter is especially advantageous for accurate tuning of the short-wave stations.



On some instruments R3, is 100,000 ohms and R4 is 33,000 ohms.

Figure 1—Schematic Circuit Diagram

On some instruments, R-8, R-9 and C-23 are omitted and the RCA-6H6 first Cathode is directly grounded.

Circuit Arrangement

The conventional Superheterodyne type of circuit, consisting of a combined first detector-oscillator stage, a single i-f stage, a diode detector-automatic volume control stage, an audio voltage amplifier stage, an audio power output stage and a high voltage rectifier power supply stage is used.

Tuned Circuits

The antenna coil system consists of a single primary and three series connected secondary windings to provide the three ranges of tuning. The oscillator coil system is similarly wound on a single form. A range selector switch (S-3) is used for connecting the various sections of these two coil systems into the circuit to provide operation on the band desired. The coils are tuned by a variable two-section gang condenser having trimmer capacitors in shunt with each section. There are additional trimmer capacitors across the section of each coil used for Band "A." A series trimmer is also associated with the Band "A" oscillator coil.

The intermediate frequency amplifier system consists of an RCA-6K7 in a transformer-coupled circuit. This stage operates at a basic frequency of 460 kc. Each winding of both i-f transformers (input and output) is tuned by an adjustable trimmer.

Detector and A.V.C.

The modulated signal as obtained from the output of the i-f stage is detected by an RCA-6H6 double diode tube. The audio frequency secured by this process is transferred to the a-f system for amplification and final reproduction. The d-c voltage which results from detection of the signal is used for automatic volume control. This voltage, which develops across resistor R-7, is applied as automatic control grid bias to the first detector and i-f tubes through a suitable resistance filter circuit. The second (auxiliary) diode of the RCA-6H6 is used to supply residual bias for the controlled tubes under conditions of little or no signal. This diode, under such conditions, draws current which flows through resistors R-6, R-7 and R-8, thereby maintaining the desired minimum operating bias on such tubes. On application of signal energy above a certain level, however, the auxiliary bias diode ceases to draw current and the a.v.c. diode

takes over the biasing function. The cathode and anode of the signal-a.v.c. diode have positive potential in respect to chassis-ground and cathodes of the a.v.c. controlled tubes when no signal is being received. (The cathode of the second detector diode is being grounded on later production to simplify manufacture and to minimize the number of component parts required. Two resistors, R-9 and R-8, and one condenser, C-23, of the first production models have accordingly been eliminated as is noted on the schematic and chassis wiring diagrams.)

Audio System

The manual volume control consists of an acoustically tapered potentiometer in the audio circuit between the output of the detector diode and the input grid of the audio voltage amplifier tube. This control has a tone compensating filter connected to it so that the correct aural balance will be obtained at different volume settings.

Resistance-capacitance coupling is used between the first audio stage and the power output stage. The output of the power amplifier is transformer-coupled into the dynamic loudspeaker. High frequency tone control is effected by a capacitor across the plate circuit of the output tube. This capacitor may be cut in or out of the circuit as desired by means of a switch (S-2).

Rectifier

The power required for operation of this receiver is supplied through transformer T-1. This transformer has an efficient static shield between its primary and secondary windings. This shield prevents interference which is on the power supply circuit from entering the receiver and conversely reduces the tendency of the receiver to re-radiate into the power circuit. An RCA-80 furnishes the high voltage necessary for plate, screen, cathode and grid potentials through a brute-force filter. The field winding of the loudspeaker is used as a reactor in this filter circuit from which it simultaneously receives its magnetizing current. The heaters of all Radiotrons are supplied from a low voltage (6.3 volt) winding on the power transformer. One side of this winding is at ground potential.

SERVICE DATA

The various diagrams of this bulletin contain such information as will be needed to isolate causes for defective operation when such a condition develops. Ratings of the resistors, capacitors, coils, etc., are indicated adjacent to the symbols signifying these parts on the diagrams. Identification titles, such as R-3, L-2, C-1, etc., are provided for reference between the diagrams and the replacement parts list. Locating of the parts in the schematic circuit is facilitated by the fact that the numerical titles increase from left to right on the diagram. The coils, reactors, and transformer windings are rated in terms of their d-c re-

sistances only, and when the resistance is less than one ohm, no rating is given.

Alignment Procedure

Precise alignment is vital to the proper functioning of this receiver. There are four trimming adjustments provided in the i-f system, three in the oscillator coil system and two in the antenna coil system. Each of these trimmers have been accurately adjusted during manufacture and should remain properly aligned unless affected by abnormal conditions of climate or

have been altered for service purposes. Incorrect alignment is usually evidenced by loss of sensitivity, improper tone quality and poor selectivity. These indications will generally be present together.

The correct performance of the receiver can only be obtained when the alignment is performed with adequate and reliable test apparatus. The manufacturer of this instrument has a complete assortment of such service equipment available. This equipment may be purchased from authorized distributors and dealers.

An oscillator (signal generator) is required as a source of the specified alignment frequencies. Visual indication of receiver output during the adjustment is necessary to enable the serviceman to obtain an accuracy of alignment which is not possible by listening to the signal. The RCA Victor Stock No. 9595 Full Range Oscillator and the RCA Victor Stock No. 4317 Neon Output Indicator are especially suitable and fulfill the above requirements.

The following procedure should be followed in adjusting the various trimmer capacitors:

I-F Trimmer Adjustments

The four trimmers of the two i-f transformers are located as shown by Figure 4. Each must be aligned to a basic frequency of 460 kc. To do this, attach the Output Indicator across the voice coil circuit or across the output transformer primary. Connect the output of the test oscillator between the control grid of the RCA-6A8 first detector tube and chassis-ground. Tune the oscillator to 460 kc. Advance the receiver volume control to its full-on position and adjust the receiver tuning control to a point within its range where no interference is encountered either from local broadcast stations or the heterodyne oscillator. Increase the output of the test oscillator until a slight indication is apparent on the output indicator. Then adjust the two trimmers of the second i-f transformer to produce maximum (peak) indicated receiver output. Then, adjust the two trimmers of the first i-f transformer for maximum (peak) receiver output as shown by the indicating device. During these adjustments, regulate the test oscillator output so that the indication is always as low as possible. By doing so, broadness of tuning due to a.v.c. action will be avoided. It is advisable to repeat the adjustment of all i-f trimmers a second time to assure that the interaction between them has not disturbed the original adjustment.

R-F Trimmer Adjustments

The two trimmers which are at all times directly in shunt with the variable tuning condenser necessitate that the high-frequency range (Band C) be aligned first. The range selector switch should, therefore, be turned to its Band C position for the first adjustment. The Output Indicator should be left connected to the output system. Attach the output terminals of the test oscillator to the antenna and ground terminals of the receiver input.

Calibrate the dial by rotating the tuning control until the variable condenser plates are in their full

mesh (maximum capacity) position and adjusting the dial pointer so that its end points to the horizontal graduation (530 kc.) at the low frequency end of the Band A scale.

Proceed further as follows:

- (a) Adjust the test oscillator to 18,000 kc. and set the receiver tuning control to a dial reading of 18,000 kc.
- (b) Regulate the output of the test oscillator until a slight indication is perceptible at the receiver output. Then adjust the trimmer on the oscillator section of the variable condenser to the point at which it produces maximum indicated receiver output. Two points may be found, each of which produces such a maximum. The one of *maximum trimmer capacitance* is correct and should be used. (The oscillator will be 460 kc. below the signal frequency at this adjustment point.)
- (c) Adjust the trimmer of the antenna section of the variable condenser, simultaneously rocking the receiver tuning control backward and for-

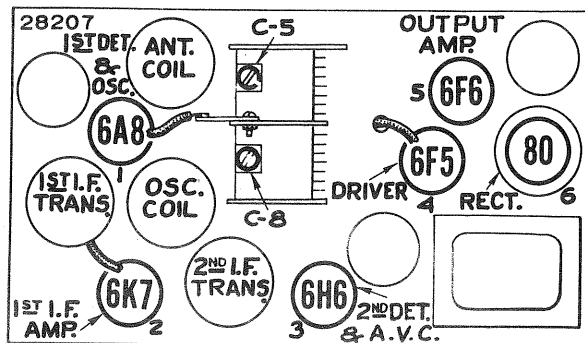


Figure 3—Radiotron and Coil Locations

ward through the 18,000 kc. input signal, until maximum receiver output results from these combined operations. Rocking of the variable condenser will prevent inaccurate adjustment which would otherwise be caused by the inter-action between the heterodyne oscillator circuit and the antenna tuned circuit.

- (d) Change the receiver range selector to its Band A position and set the receiver tuning control to a dial reading of 1400 kc. Tune the test oscillator to this same frequency and regulate its output to produce a slight indication on the receiver output indicating device.
- (e) Adjust the high frequency trimmers of the Band A oscillator and antenna coils, C-10 and C-3 respectively, to the points at which each produces maximum indicated receiver output.
- (f) Shift the test oscillator frequency to 600 kc. and tune the receiver to pick up this signal, disregarding the dial reading at which it is best received.
- (g) Tune the low frequency trimmer, C-12, of the oscillator Band A coil, simultaneously rocking the tuning control of the receiver backward and forward through the signal, until maxi-

mum indicated receiver output results from these combined operations. The adjustment of C-10 and C-3 should be corrected at 1400 kc. to compensate for any changes caused by the adjustment of the low frequency oscillator coil trimmer.

Radiotron Socket Voltages

The voltage values indicated from the Radiotron socket contacts to chassis on Figure 4 will assist in the location of causes for faulty operation. Each value as specified should hold within $\pm 20\%$ when the receiver is normally operative at its rated supply voltage. Variations in excess of this limit will usually be indicative of trouble in the basic circuits. The voltages given are actual operating values and do not allow for inaccuracies which may be caused by the loading effect of a voltmeter's internal resistance. This resistance should be duly considered for all readings. The amount of circuit resistance shunting the meter during measurement will determine the accuracy to be obtained, the error increasing as the meter resistance becomes comparable to or less than the cir-

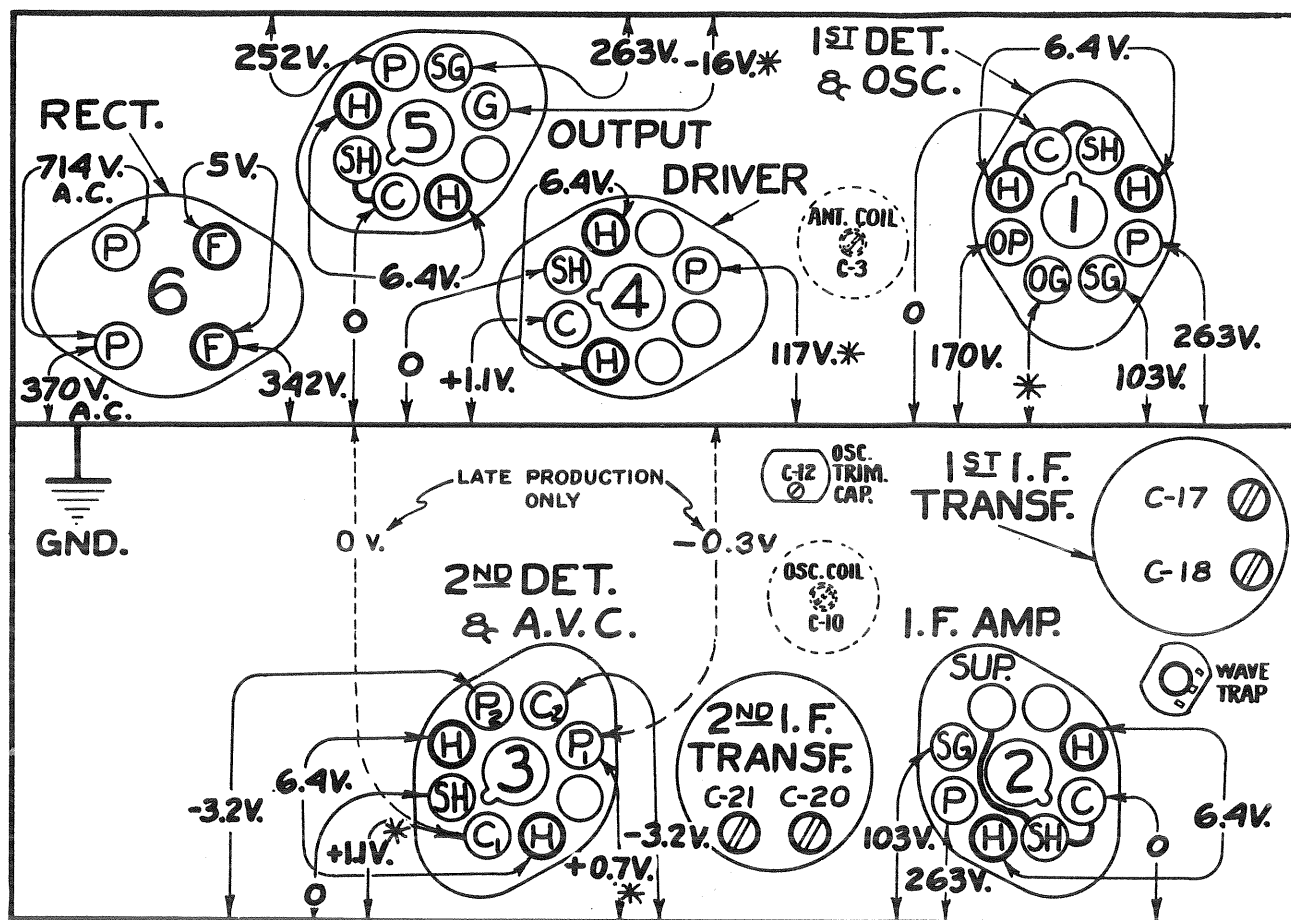
cuit resistance. For the majority of readings, a meter having an internal resistance of 1000 ohms per volt will be satisfactory when the range used for each reading is chosen as high as possible consistent with good readability.

Universal Transformer

The special transformer used on some receivers of this type is adaptable to several ranges of voltage as given under Rating C of Electrical Specifications. Its schematic and wiring are shown by Figure 6. Terminals are provided at the top of the transformer case for changing the primary connections to suit the voltage available. Note that a 110-volt tap is brought out separately for supplying a phonograph motor.

Wave-Trap Adjustment

With the receiver in operation using its normal antenna, tune station selector to the point at which the intermediate frequency interference is most intense. Then adjust the wave trap trimmer to the point which causes maximum suppression of the interference.



(*) CANNOT BE MEASURED WITH ORDINARY VOLTMETER.

Figure 4—Radiotron Socket Voltages
Measured at 115 volts, 60 cycle supply—No signal being received

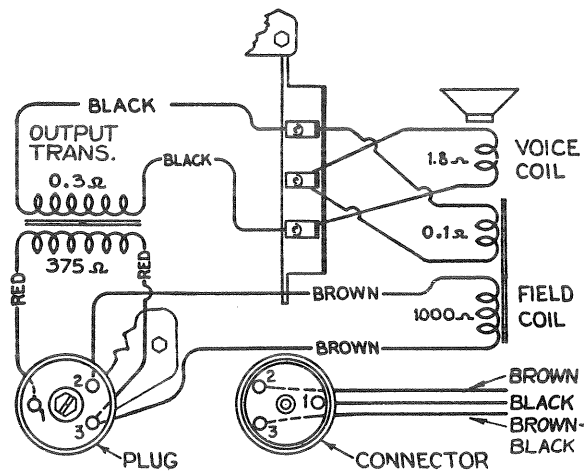
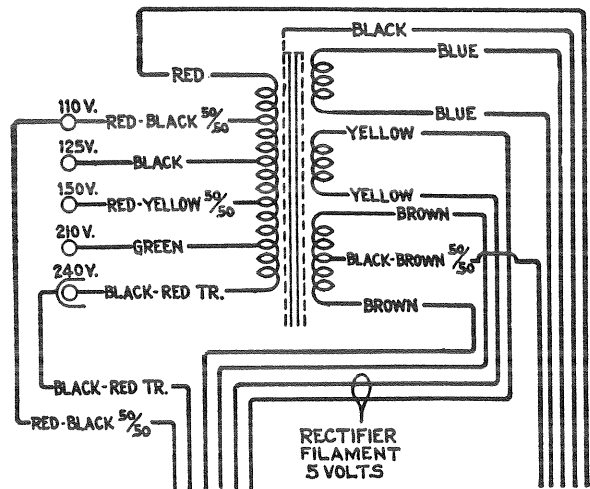


Figure 5—Loudspeaker Wiring



Primary Resistance—17.3 ohms, Total
Secondary Resistance—408 ohms, Total

Figure 6—Universal Transformer

REPLACEMENT PARTS

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

| STOCK No. | DESCRIPTION | LIST PRICE | STOCK No. | DESCRIPTION | LIST PRICE |
|----------------------------|---|------------|------------------------------|--|------------|
| RECEIVER ASSEMBLIES | | | | | |
| 5237 | Bushing—Variable tuning condenser mounting bushing—Package of 3..... | \$0.43 | ** 3066 | Resistor—12,000 Ohms—Carbon type—1 watt—(R4)—Package of 5..... | 1.10 |
| 11465 | Capacitor—Adjustable capacitor—(C12).. | .48 | 11400 | Resistor—27,000 Ohms—Carbon type—1/4 watt—(R10)—Package of 5..... | 1.00 |
| 11289 | Capacitor—50 MMfd.—(C9)..... | .26 | ** 5029 | Resistor—56,000 Ohms—Carbon type—1/4 watt—(R3)—Package of 5..... | 1.00 |
| 11623 | Capacitor—175 MMfd.—(C26)..... | .18 | 5158 | Resistor—220,000 Ohms—Carbon type—1/4 watt—(R9)*—Package of 5..... | 1.00 |
| 11290 | Capacitor—400 MMfd.—(C2, C6)..... | .25 | 11453 | Resistor—270,000 Ohms—Carbon type—1/10 watt—(R12)—Package of 5..... | .75 |
| 11622 | Capacitor—3000 MMfd.—(C13)..... | .36 | 11452 | Resistor—470,000 Ohms—Carbon type—1/10 watt—(R13)—Package of 5..... | .75 |
| 11621 | Capacitor—3600 MMfd.—(C11)..... | .38 | 11397 | Resistor—560,000 Ohms—Carbon type—1/10 watt—(R2)—Package of 5..... | .75 |
| 11287 | Capacitor—4500 MMfd.—(C14)..... | .30 | 11626 | Resistor—2.2 Megohms—Carbon type—1/4 watt—(R6)—Package of 5..... | 1.00 |
| 4868 | Capacitor—.005 Mfd.—(C29)..... | .20 | 11603 | Shield—Antenna or oscillator coil shield.. | .26 |
| 11395 | Capacitor—.01 Mfd.—(C24)..... | .18 | 11390 | Shield—Intermediate frequency transformer shield..... | .25 |
| 4858 | Capacitor—.01 Mfd.—(C25, C27)..... | .25 | 11383 | Shield—Rectifier Radiotron shield..... | .20 |
| 4906 | Capacitor—.017 Mfd.—(C28)..... | .25 | 11614 | Spring—Coil spring for large gears on variable tuning condenser—Package of 10..... | .70 |
| 4841 | Capacitor—.01 Mfd.—(C19, C23)*..... | .22 | 11616 | Switch—Range switch—(S3)..... | 1.00 |
| 11414 | Capacitor—.01 Mfd.—(C15)..... | .20 | 11460 | Switch—Tone control and power switch—(S1, S2)..... | .95 |
| 5170 | Capacitor—.025 Mfd.—(C32)..... | .25 | 5238 | Terminal—Antenna terminal board, with clip..... | .14 |
| 11387 | Capacitor—.10 Mfd.—(C16)..... | .86 | 11388 | Transformer—First intermediate frequency transformer—(L12, L13, C17, C18)... | 1.90 |
| 11240 | Capacitor—.10 Mfd.—(C30)..... | 1.08 | 11389 | Transformer—Second intermediate frequency transformer—(L14, L15, C20, C21, C22, R5, R7)..... | 3.02 |
| 5212 | Capacitor—.18 Mfd.—(C31)..... | 1.16 | 11458 | Transformer—Power transformer—105-125 volts—50-60 cycles—(T1)..... | 4.85 |
| 11617 | Coil—Antenna coil—(L2, L3, L4, L5, C3R1) | 1.68 | 11585 | Transformer—Power transformer—105-125 volts—25-50 cycles..... | 7.00 |
| 11618 | Coil—Oscillator coil—(L6, L7, L8, L9, L10, L11, C10)..... | 2.22 | 11584 | Transformer—Power transformer—100-130, 140-160, 195-250 volts—40-60 cycles... | 5.05 |
| 11612 | Condenser—Two-gang variable tuning condenser—(C4, C5, C7, C8)..... | 3.80 | 11391 | Trap—Wave trap—(L1, C1)..... | 1.22 |
| 11615 | Dial—Station selector dial..... | .60 | 11237 | Volume Control—(R11)..... | 1.20 |
| 11613 | Drive—Variable tuning condenser drive.. | 1.00 | REPRODUCER ASSEMBLIES | | |
| 11376 | Escutcheon—Station selector escutcheon and crystal..... | .70 | Console Model | | |
| 11619 | Foot—Chassis mounting foot and bracket assembly—Package of 2..... | .65 | 11232 | Board—Terminal board assembly..... | .18 |
| 11396 | Indicator—Station selector indicator pointer lamp—Dial lamp—Package of 5..... | .70 | | | |
| 5226 | Resistor—Voltage divider resistor—comprising one 3500 ohm, one 13000 ohm, one 85 ohm, one 40 ohm, and one 175 ohm sections—(R14, R15, R16, R17, R18)..... | .95 | | | |
| 11624 | Resistor—22 Ohms—Flexible type—complete with contact cap—(R19)..... | .22 | | | |
| 11620 | Resistor—220 Ohms—Carbon type—1/10 watt—(R1)—Package of 5..... | .75 | | | |
| 11283 | Resistor—1200 Ohms—Carbon type—1/4 watt—(R8)*—Package of 5..... | 1.00 | | | |

* R8, R9, C23 used in some models

** 8072 Resistor—33,000 Ohms—Carbon type—1/2 watt—(R4)—Package of 5..... 1.00 Used in some models.
3118 Resistor—100,000 Ohms—Carbon type—1/4 watt—(R3)—Package of 5..... 1.00 Used in some models.

REPLACEMENT PARTS (Continued)

| STOCK No. | DESCRIPTION | LIST PRICE | STOCK No. | DESCRIPTION | LIST PRICE |
|-----------------------|---|------------|-----------|---|------------|
| 11231 | Bolt—Yoke and core assembly bolt and nut | .16 | 11231 | Bolt—Yoke and core assembly bolt and nut | .16 |
| 8060 | Bracket—Output transformer mounting bracket | .14 | 8060 | Bracket—Output transformer mounting bracket | .14 |
| 11257 | Clamp—Cone center suspension clamping nut and screw assembly—Package of 5. | .25 | 11257 | Clamp—Cone center suspension clamping nut and screw assembly—Package of 5. | .25 |
| 11470 | Coil—Field coil—(L16)..... | 2.16 | 11470 | Coil—Field coil—(L16)..... | 2.16 |
| 11469 | Coil—Neutralizing coil—(L18)..... | .20 | 11469 | Coil—Neutralizing coil—(L18)..... | .20 |
| 11258 | Cone—Reproducer cone—(L17)—Package of 5..... | 3.85 | 11235 | Cone—Reproducer cone—(L17)—Package of 5..... | 3.50 |
| 5118 | Connector—Three contact male connector for reproducer..... | .25 | 5118 | Connector—Three contact male connector for reproducer..... | .25 |
| 5119 | Connector—Three contact female connector for reproducer cable..... | .25 | 5119 | Connector—Three contact female connector for reproducer cable..... | .25 |
| 9622 | Reproducer—Complete | 7.16 | 9621 | Reproducer—Complete | 6.85 |
| 11253 | Transformer—Output transformer—(T2). | 1.56 | 11253 | Transformer—Output transformer—(T2). | 1.56 |
| 11230 | Washer—Binders board "C" washer—used to hold field coil assembly—Package of 5 | .18 | 11230 | Washer—Binders board "C" washer—used to hold field coil assembly—Package of 5 | .18 |
| REPRODUCER ASSEMBLIES | | | | | |
| Table Model | | | | | |
| 11232 | Board—Terminal board assembly..... | .18 | | | |

— NOTES —

- (1) Beat notes or heterodyning (whistles) may be encountered in some instances on these receivers due to excessive antenna capacitance. This condition may be corrected by reducing the size of the antenna or by inserting a 150 mmfd. capacitor in series with the antenna lead. This may be accomplished in the receiver by removing the bus lead which connects from the antenna terminal to the wave trap inductance L-1 and inserting the condenser between these points.

RCA VICTOR MODEL T 6-9

Six-Tube, Two-Band, A-C, Superheterodyne, Table Receiver

SERVICE NOTES

Electrical Specifications

FREQUENCY RANGES

Broadcast Band (A)540-1850 kc.
 Shortwave Band (B)1850-6900 kc.

ALIGNMENT FREQUENCIES

Broadcast Band (A)600 kc. and 1720 kc.
 Shortwave Band (B)No Adjustments Required

RADIOTRON COMPLEMENT

| | |
|--|--|
| (1) RCA-6A8First Detector-Oscillator | (4) RCA-6F5Audio Voltage Amplifier |
| (2) RCA-6K7Intermediate Amplifier | (5) RCA-6F6Audio Power Amplifier |
| (3) RCA-6H6Second Detector-A.V.C. | (6) RCA-80Full Wave Rectifier |

VOLTAGE AND FREQUENCY

Rating A 105-125 volts, 50-60 cycles
 Rating B 105-125 volts, 25-60 cycles
 Rating C 100-130/140-160/195-250 volts, 40-60 cycles

Power Consumption90 watts

Intermediate Frequency460 kc.

POWER OUTPUT

Undistorted2.0 watts
 Maximum4.5 watts

LOUDSPEAKER

Type 8 inch, Electrodynamic
 Voice Coil Impedance.....2.25 ohms at 400 cycles

Mechanical Specifications

Height17¹/₄ inches
 Width13³/₈ inches
 Depth 8¹/₄ inches
 Weight (Net).....19¹/₂ pounds
 Weight (Shipping).....24 pounds
 Chassis Base Size.....12 inches x 7 inches x 2¹/₂ inches
 Controls.....(1) H-F Tone Control-Power Switch, (2) Tuning, (3) Volume Control, (4) Range Selector
 Tuning Ratio.....6 to 1

General Features

This table-type receiver has many distinctive features. It employs the new RCA All-Metal tubes operating in a Superheterodyne circuit. The tuning ranges cover the standard broadcast band and extend above it to include the 49 meter short wave broadcast band. The short wave portion of this extensive range also includes the channels assigned for police, amateur and aviation communication.

A high-ratio gang condenser drive is provided to facilitate accurate tuning. This feature is especially valuable for short wave reception. The dial is clearly

graduated and uniformly illuminated.

Automatic volume control is incorporated in the circuit to compensate for fluctuations of signal strength due to fading.

High-frequency tone control enables the listener to reduce unavoidable noises and static.

An adjustable series wave-trap in parallel with the antenna input serves to suppress code interference which may be encountered in certain localities from intermediate frequency radio telegraph signals.

Circuit Arrangement

The first detector and oscillator functions are accomplished in a single tube, an RCA-6A8. The input of this tube is coupled to the antenna through a tuned trans-

former. A shunt (series tuned) wave-trap is connected across the primary of this transformer to prevent signals of intermediate frequency (460 kc) from being intro-